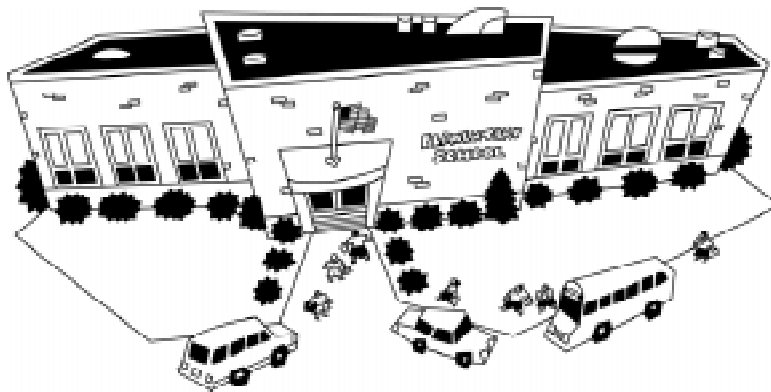


Reuse and Recycling for Teachers

Materials, Supplies, and Curricula



- ★ Materials Exchange Facilities for Schools
- ★ Computer and Software Reuse for Schools
- ★ Waste Prevention Ideas for Classrooms
- ★ Teacher Workshops
- ★ Classroom Curricula
- ★ Environmental Education Web Sites

The following pages of information contain references to a variety of reuse and recycling resources for California public school teachers and administrators. A wealth of free materials, supplies, information, support and curricula are available to schools through the business community and local and state government agencies. From art supplies and computers to environmental curricula, teachers and school administrators will find references to Web sites, facilities, and events that can enrich their classrooms.

This document is provided by the California Integrated Waste Management Board (CIWMB) and the California Materials Exchange (CalMAX). The Board is distributing this information in an effort to increase public awareness and knowledge. The State makes no warranty, expressed or implied, and it assumes no liability for the information contained in this document.

Materials Exchange Facilities for Schools

Businesses generate more than half of the solid waste in the state. Competition and the need for efficiency require businesses to be equipped with the latest technology, products and materials. Much of what businesses “throw away” are clean, usable materials such as outdated electronics, folders, and containers, —all potentially “reusable” in the classroom. Businesses also discard specialized materials that can be used in school laboratories, or hands-on learning centers such as science, art, or garden labs.

Reuse facilities specializing in providing free materials and supplies to schools are located throughout the state. These facilities are filling two roles: They provide a place for teachers to locally “shop for free” for much needed supplies, and they benefit businesses by providing an alternative to costly landfill disposal fees. Businesses also donate items of value for use in local schools to obtain tax benefits or to gain recognition within the community.

Art From Scrap



AFS promotes conservation and reuse through hands-on exploration of discarded materials. Arts and science workshops help students understand complex environmental issues. Materials donated by regional businesses and manufacturers are available for reuse in community programs.

Materials collected include plastic neon colored squiggles, small scraps of lumber, brightly colored card stock, fabric and textiles scraps, glass and plastic test tubes, funnels, yarn, boxes, wire, foam, paper, ribbon and any number of industrial doo-dads.

Art From Scrap
Community Environmental Council
302 East Cota
Santa Barbara, CA 93101
(805) 884-0459
afs@rain.org
www.grc.org/afs



California Area Resources for Educators (CARE)

Donated from the Sacramento business community, goods and materials are available for educators, teachers, trainers, leaders, and facilitators. These materials are used for a number of projects including, creative math, science, art and crafts, and other projects designed for the classroom, training programs, and workshops.

Materials available include paper, boxes, cartons, pencils, crayons, stools, spools, balloons, string, yarn, buttons, fabric, weights, books, cards, wrapping paper, wall paper, wood, counter materials, paste, folders, envelopes, mylar, bolts, beads, magnets, small trees, seeds, moss, pots, furniture, etc.

Old Sacramento Army Depot
8350 Fruitridge Road, Gate 1
Sacramento, CA 95826
(916) 379-9765

Materials Exchange Facilities for Schools

L.A. Shares, L.A. Unified School District

L.A. SHARES is a nonprofit materials reuse program that provides donated materials from the local business community to qualified nonprofits in the Los Angeles area. The Los Angeles Unified School district is the largest single donee of L.A. Shares.

Teachers may "shop for free" on a quarterly basis at the two L.A. Shares warehouses. Available items include office supplies and furniture, computers, and audio-visual equipment. Materials not available are toxic materials, food, clothing, bedding, refrigerators, washers, dryers, stoves, paint, or construction debris.

L.A. Shares, L.A. Unified School District

3224 Riverside Drive
Los Angeles, CA 90027
(213) 485-1097
lashares@aol.com
www.lashares.org



RAFT-Resource Area for Teachers, San Jose

RAFT collects surplus business items from computers to packing materials and trains teachers to use these materials in the classroom to enhance their programs including math, science, art and technology.

Materials available include letterhead, office items, etc. Materials are clean and/or manufacturing by-products.

1355 Ridder Park Drive
San Jose, CA 95131
(408) 451-1420
raft@raft.net
www.raft.net

KidMAX

KidMAX is a special part of the California Materials Exchange (CalMAX) Program that is sponsored by the California Integrated Waste Management Board. KidMAX offers schools and other non-profit organizations **FREE** and/or bargain-priced materials and free advertisements (for wanted or available materials) through the CalMAX Classifieds. Teachers can obtain a variety of useful materials donated from all over California by searching for listings with the pencil icon .

California Materials Exchange Program
8800 Cal Center Drive, MS-23
Sacramento, CA 95826
(877) 520-9703
CalMAX@ciwmb.ca.gov
<http://www.ciwmb.ca.gov/CalMAX/KidMAX.htm>

Did You
Know?



A pre-school uses
cotton string from a
hospital for art
projects!

A junior high school gets
paper rolls from a tea
packaging company to make
banners and holiday wrap!

An Oakland high
school uses donated
designer fabric to
make piecework
vests for profit!

These are just a few of the reuse facilities in the state specializing in free materials and supplies for schools. To locate resources in your area, please contact CalMAX at (877) 520-9703.

Computer and Software Reuse for Schools



Parents, Educators, and Publishers (PEP) is a comprehensive list of Web sites for used materials and computers for teachers. This site provides information and resources on programs that donate computers and software to schools.

<http://www.microweb.com/pepsite/Recycle/National.html>

Computers for Learning donates surplus federal computer equipment to schools and educational nonprofits, giving special consideration to those with the greatest need. Their web site allows schools and

educational nonprofits to register and request surplus federal computer equipment. Federal agencies then use the website to donate computers to schools and educational nonprofits based on need. <http://www.computers.fed.gov/School/user.asp>

Computers For Schools is a nonprofit association that partners with large corporations to donate computers, peripherals, and software to schools nationwide. For more information see <http://www.detwiler.org/index1.html>

CA Department of General Services, Surplus Property Program (SPP)

With warehouses in Sacramento and Fullerton, this is the largest facility for salvaged and surplus federal and state property. School districts are eligible to donate and receive thousands of items, including computers, for a service and handling fee.

Northern CA:

1700 National Drive
Sacramento, CA 95834
(916) 928-4630
(916) 928-0304 fax

Southern CA:

701 Burning Tree Road
Fullerton, CA 92833
(714) 449-5900; (714) 449-5917 fax



Surplus computers available at the Sacramento warehouse, 1999.

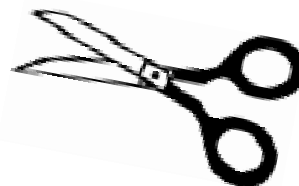
<http://www.pd.dgs.ca.gov/default.asp?mp=/materials/surplus.asp>

Want to know where environmental education outreach events are taking place? Then check out the California Environmental Education Interagency Network (CEEIN) Calendar at <http://www.oehha.ca.gov/ceein/pdf/fairevents.pdf>.

The CEEIN is a unique partnership of the California Department of Education and the departments, boards, and commissions of the California Environmental Protection Agency and the Resources Agency of California.

Waste Prevention Ideas for Schools and Classrooms

This list of waste prevention ideas is intended to assist teachers and school administrators in jump starting classroom waste prevention efforts.



Reduce Paper Waste Whenever Possible

- ✓ Allow students to submit homework on the back side of used paper.
- ✓ Duplicate handouts using both sides of paper.
- ✓ Keep a box for various types of scratch papers (single-sided, construction, etc.).
- ✓ Bind scrap paper with staples or clips to use for taking notes.
- ✓ Place wall decorations directly on walls or bulletin boards without paper linings. Reuse wall decorations or exchange them with other teachers.
- ✓ Maximize use of overhead projector and black/white board to minimize use of dittoed information.
- ✓ Place worksheets in plastic sleeves. Have students write with crayon and erase with carpet squares.
- ✓ Use erasable lapboards for classroom work.
- ✓ Bring lunches in reusable containers, e.g., use a thermos and cloth lunch bag or lunch box. Encourage students to do the same!
- ✓ Use reusable dishware for class parties. Consider having each student keep his/her own cup, plate, and utensils for parties. Alternatively, select party foods that do not need to be served on dishware.
- ✓ Set up a table at the end of semesters for students to place unwanted pencils, notebooks, etc. Bring the materials out at the beginning of the next semester for students to use.

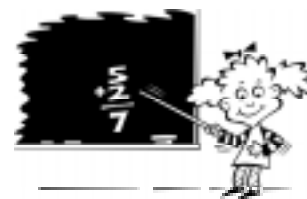
Start Up Special Projects That Reduce Waste

- ✓ Designate a "no-waste day" to see how much waste can be reduced. Teach students how to bring a no-waste lunch.
- ✓ Investigate the feasibility of composting yard debris and cafeteria fruit and vegetable trimmings.
- ✓ Set up a worm bin in the classroom (see page 7, vermicomposting/composting curriculum).
- ✓ Write letters to manufacturers asking them to use less packaging and design products that are more durable, repairable, and reusable.
- ✓ Conduct a waste prevention poster contest. Specify that posters must be made from used materials.
- ✓ Create PTA subcommittees for waste prevention and recycling. Work with the school district and/or local recycling coordinator to implement waste prevention and recycling on campus.
- ✓ Set up school swaps to exchange and reuse goods such as books, supplies, and uniforms.

For more waste prevention information for schools and offices, visit the California Integrated Waste Management Board's Public Education and Assistance Program at www.ciwmb.ca.gov/Schools/WasteReduce/ and the Business Waste Reduction Program at www.ciwmb.ca.gov/BizWaste/OfficePaper/.

CIWMB Public Education and Assistance Program

The California Integrated Waste Management Board's Public Education and Assistance Section provides environmental education support to K-12 schools through classroom curricula and workshops.



Teacher Workshops

The Board offers workshops to California teachers on three classroom curricula, *Closing the Loop*, *Earth Resources—A Case Study: Oil*, and a worm guide, *Worms, Worms and Even More Worms*. Provided at no cost to the school district or teachers, these workshops can vary in length and content to meet the needs of the participants. The workshops may be provided as a school's teacher in-service or professional development training. The workshops can also be part of a pre-service program for students working toward their teaching credentials. The following is a list of past and present workshops for fall and winter 2000. For current information, please contact your regional CIWMB contact (see Page 8).

DATE	EVENT	LOCATION	CIWMB CONTACT	WORKSHOP(S)
Sept. 9, 2000	Teacher Training	San Joaquin	Rachelle Steen	Municipal Solid Waste
Sept. 13, 2000	Teacher Training	Los Angeles	Tavia Pagan	Closing the Loop
Sept. 19, 2000	Teacher Training	San Bernardino	Valorie Shatynski	Closing the Loop
Sept. 26, 2000	Teacher Training In-Service	San Francisco	Pauline Lawrence	Closing the Loop
Sept. 27, 2000	Teacher Training In-Service	San Francisco	Pauline Lawrence	Closing the Loop
Sept. 28, 2000	Teacher Training Pre-Service	Sonoma	Pauline Lawrence	Closing the Loop
Sept. 30, 2000	Teacher Training	San Joaquin	Rachelle Steen	Municipal Solid Waste
Oct. 3, 2000	Teacher Training Pre-Service	Sonoma	Pauline Lawrence	Closing the Loop
Oct. 13, 2000	CA Science Teachers Association Annual Conference	Sacramento	Tavia Pagan	Earth's Resources, Closing the Loop
Oct. 14, 2000	CA Science Teachers Association Annual Conference	Sacramento	Tavia Pagan	Municipal Solid Waste
Oct. 16, 2000	Teacher Training	Marin	Pauline Lawrence	Closing the Loop
Oct. 19, 2000	Teacher Training	Kings	Rachelle Steen	Closing the Loop
Nov. 2, 2000	CA Reading Association Conference	Santa Clara	Pauline Lawrence	Closing the Loop
Nov. 8, 2000	Teacher Training	Stanislaus	Rachelle Steen	Closing the Loop
Nov. 18, 2000	Teacher Training	Butte	Tavia Pagan	Closing the Loop
Jan 6, 2001	Bay Area Environmental Education Resource (BAEER) Fair	Marin	Pauline Lawrence	Municipal Solid Waste
Jan. 13, 2001	CA Kindergarten Conference	San Francisco	Pauline Lawrence	Closing the Loop

Class Curriculum

The Board provides curricula with current waste management information that encourages both students and teachers to practice "reduce, reuse, recycle" in the classroom and home, while making it exciting and interesting for everyone.

Each teacher participating in a workshop receives a copy of the curriculum, resource packet, and information on how to use the curriculum effectively in their classroom.

CIWMB Public Education and Assistance Program

Class Curriculum Continued

Closing the Loop

Closing the Loop is a K-6 grade curriculum that is an excellent resource for incorporating waste prevention, recycling, and composting concepts into the classroom. It is an interdisciplinary, action-oriented, and hands-on curriculum that is aligned with California's Content Standards and Frameworks.

Closing the Loop is a compilation of 50 activities to help students discover and nurture an environmental ethic and stewardship for natural resources. The activities focus on solid waste and environmental awareness topics including landfills, recycling, packaging, resource conservation, waste prevention, worm composting, and more.

The lessons are grouped into two specific grade level modules: K-3 Grade Module and 4-6 Grade Module. Each lesson encourages students to explore their natural environment, identify waste management issues, and engage in personal and community action projects. The curriculum includes teacher background information on integrated waste management and easy to follow and implement lesson plans.

Worms, Worms, and Even More Worms!

Vermicomposting is the practice of using worms to transform food waste into a nutrient-rich finished product called vermicompost. In a school setting, vermicomposting can set the stage for a variety of interdisciplinary activities. Students can use school cafeteria waste for the worm bin, and participate in a variety of interesting experiments while maintaining the bin in the classroom. They can then use the vermicompost in a school or classroom garden.

Worms, Worms, and Even More Worms; a Vermicomposting Guide for Teachers, provides information on starting and maintaining a successful vermicomposting system and engaging lab activities for the classroom. It is available by attending a classroom demonstration of vermicomposting, or by attending a Closing the Loop teacher workshop. CIWMB Publication # 322-98-008.

Earth Resources--A Case Study: Oil

The curriculum features more than 18 engaging lessons that will enable students to learn about the life cycle of a natural resource (using oil as a case study), how it is formed, discovered, extracted, processed, used, collected, and recycled. Through hands-on laboratory investigations, students will identify the environmental impacts of using natural resources and the positive actions they can take to protect the environment. They will explore the science concepts behind the decisions they will need to make, and some of the consequences of these decisions. The curriculum is nine to twelve weeks in length and is based on the State Science Framework and National Science Education Standards.

**Attention
High School Teachers!**

Project Learning Tree: Municipal Solid Waste Module

This module contains eight lessons and is designed for educators teaching 7th through 12th grades. The module focuses on current solid waste dilemmas and helps the students realize that they can create a positive change in their community and environment. Through interesting hands-on activities, students will have the opportunity to learn by using critical thinking and decision-making skills.

CIWMB Public Education and Assistance Program

Environmental Education Web Sites

The California Integrated Waste Management Board's Public Education and Assistance Program provides **more than 100 environmental education resources** links on Awards and Activities, Composting, Environmental Education, Landfills, Natural Resources, Recycling, and Vermicomposting.

www.ciwmb.ca.gov/Schools/Links/

CIWMB Public Education Regional Representatives

<u>Contact Name</u>	<u>Telephone</u>	<u>E-Mail Address</u>	<u>Region</u>
Pauline Lawrence	(916) 255-2372	plawrenc@ciwmb.ca.gov	Bay Area
Tavia Pagan	(916) 255-2389	tpagan@ciwmb.ca.gov	Northern CA
Rachelle Steen	(916) 255-2374	rsteen@ciwmb.ca.gov	Central CA
Valorie Shatynski	(714) 449-7077	vshatynski@ciwmb.ca.gov	Southern CA

Attention 5th Grade Teachers!!! Join Jiminy Cricket's Environmental Challenge 2000

The Environmental Challenge is an opportunity for fifth grade classes in California to take responsible action to restore, preserve, and care for our environment. Through fun and active learning, students develop leadership skills and an understanding of many concepts in California's Content Standards. The challenge consists of two parts — the pledge and the class project competition. You choose the level of participation. **Everybody receives rewards!**



© The Walt Disney Company

The pledge is simple and it only takes a small commitment. In the competition, the sky's the limit as students address a "real" environmental problem and make a difference. Students are encouraged to blend the idea of Environmentality — thinking and acting environmentally at school, at home, and in the community — into their daily lives.

Hurry!! Pledges and Entry Forms are due November 10, 2000!

Class Project Results are due March 20, 2001!



The Environmental Challenge a special partnership between Disney and the State of California's Environmental Education Interagency Network (CEEIN).

For more information on how your class can get involved in the Environmental Challenge visit the official website at <http://oehha.ca.gov/ceein/Environmentality.htm>